



THE MAIN DRAIN

STORMWATER NEWS YOU CAN USE

A Publication of the Portsmouth Department of Public Utilities/Public Works -

Division of Stormwater Management

March 2006

Yard Care for a Clean Environment

Throughout Portsmouth, stormwater drainage systems are collecting rainwater during rain storms. Made up of ditches, ponds, drainage structures, and underground pipes, these drainage systems quickly channel rain water from city streets directly into waterways.

Unfortunately, on its urban voyage, rain picks up all types of pollutants and carries them to waterways. This form of pollution is stormwater runoff and it is a by-product of our daily lives. What we put out, the rain picks up, and runoff has become the leading cause of water pollution in our nation today. One goal of Portsmouth's Stormwater Management Program is to work toward eliminating these pollutants from entering our storm drains, thereby protecting our local water bodies.

There are many factors that contribute to the pollution of our waterways. A significant one is improper lawn care, which can cause non-point source pollutants such as fertilizers, pesticides, grass clippings, and yard waste to enter our lakes, streams, rivers, wetlands, bays, and oceans through the storm drains. These pollutants can contaminate our drinking water, kill fish and marine life, and prevent us from enjoying water as a natural resource.

In order to minimize these pollutants in our waterways, there are several easy things you can do:

Your Soil

- Avoid over-fertilization. Have your soil tested for pH level, fertility, and composition every two years. This will show how much fertilizer you will need. Call your local Virginia Cooperative Extension agent at 393-5197 for testing information.

Your Lawn

- Mow your lawn to the proper height, depending on your grass type (Bermudagrass and Zoysiagrass: 1 to 1.5"; Centipedegrass: 2 to 2.5"; and St. Augustinegrass and Fescue: 2.5 to 3"). Contact your local Virginia Cooperative Extension agent for more information at 393-5197.
- Leave your grass clippings on the lawn after you mow. They provide a natural fertilizer for your lawn as they decompose and, despite common beliefs, will not create thatch.
- Recycle your grass clippings. Grass clippings are a major part of Virginia's municipal solid waste stream.

Using Fertilizers

- If rain or wind is in the forecast, choose to fertilize another day.
- Use recommended application rates and time intervals.
- Use slow-release granular fertilizers rather than liquids. They leach less and work longer.



Stormwater runoff brings fertilizers & other nutrients from area lawns into our local waterways. The result is excess algae blooms, which deplete the oxygen necessary for marine life to survive.

STORMWATER
TIP OF THE
MONTH:

"Stash the Trash"

Secure trash in the can for curbside disposal to keep litter from blowing into streets, drains, or ditches.



POOL MAINTENANCE FACTS:

Discharges from Pools, Spas, Fountains, etc.

INTRODUCTION

The average swimming pool holds 19,000 gallons of water that may contain a variety of biocides, algacides and other chemicals. These chemicals are toxic to the environment, wildlife and fish. In fact, this chemical-laden water from pools, spas and fountains may make its way to nearby storm drains and pollute waterways if discharged improperly. As in Portsmouth and other Hampton Roads localities, it is against local laws to openly discharge such water into the drainage system. Only rainwater should go down the storm drains.



HOW THIS AFFECTS YOU

Residents and service providers drain (at least partially) chemically treated water from pools for regular maintenance. Decorative fountains are regularly emptied and sometimes treated or cleaned with chemicals like chlorine to prevent algae and with acids to remove rust and other stains. Draining chemically treated water into the street will harm the environment and in some cases violate local ordinances. Even the pool filter backwash water, which contains sediments and other pollutants, should not be emptied to a driveway, street, or gutter where it will flow to nearby storm drains.

WHAT TO DO

Ordinances vary from locality to locality throughout Hampton Roads. It is up to the resident/pool owner to check with their local codes or stormwater division for direction on proper disposal of pool water. In Portsmouth, disposal of pool water should

be discharged across a lawn - well away from a storm drain. Here are some general maintenance guidelines:

- Let pool water sit for several days without treating it to allow chlorine to dissipate. Add sodium thiosulphate to the water for faster results. (Levels should be below 0.1 milligrams per liter of chlorine or bromine.)
- The pH of the water should be between 6.5 and 8.5 before it is drained.
- Avoid the use of algacides such as copper and silver by maintaining your pool's chemicals properly.
- Drain the water to grassy areas, where it will soak into the ground rather than flow to nearby storm drains. The lawn will serve as a filter.

DEFINITIONS

Biocide - a substance that is destructive to many different organisms.

Sodium Thiosulfate - a salt containing the anion $S_2O_3^{2-}$.

CONTACT INFORMATION

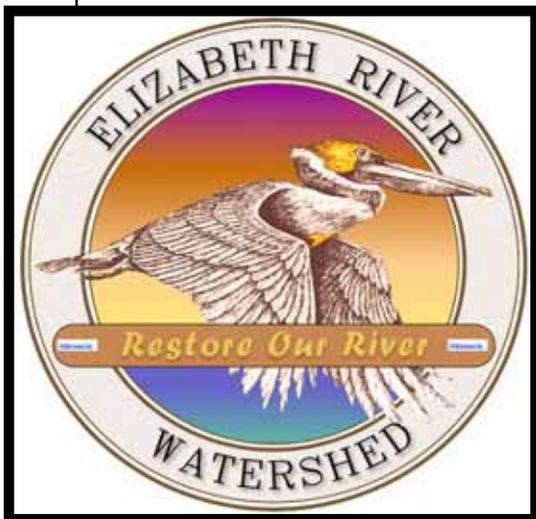
Log onto HR STORM (www.hrstorm.org) for more information and contact links or Portsmouth's website www.portsmouthva.gov/publicworks/stormwater



Portsmouth Installs Watershed Markers

Portsmouth partnered with the City of Virginia Beach and The Elizabeth River Project to install "Restore our River" watershed markers at selected sites throughout our two jurisdictions. The markers, which show the familiar Elizabeth River Project Pelican and the respective city logo are intended to raise public awareness as to the geographic extent of the watershed. Hopefully, people will make the connection that land area miles away from the river actually drains into the river.

Look for the 18-1/2" diameter roadside markers at major roadway bridge crossings over tributaries to the Elizabeth River throughout Portsmouth and Virginia Beach.



So far, Portsmouth has installed 16 markers, one on each side of the bridges, at the following locations:

1. Hodges Ferry bridge on Portsmouth Boulevard
2. Clifford Street bridge near City Park
3. Churchland bridge on High Street
4. George Washington Highway bridge at Paradise Creek
5. Victory Boulevard bridge at Paradise Creek
6. Spratley Street bridge at Scott's Creek
7. London Boulevard bridge at Scott's Creek, near Norcum High School
8. Caroline Avenue bridge in Waterview

Portsmouth is also seeking approval from VDOT to install markers on each side of the West Norfolk bridge.

Community Outreach Spotlight: Elizabeth River Garden Club

On February 7, 2006, staff from the City's Stormwater Management Division had the honor to be guest speakers at the Elizabeth River Garden Club's monthly meeting. City Stormwater Administrator, **Cindy Linkenhoker**, and Stormwater Inspector, **Wesley Brown**, gave a slideshow presentation highlighting Portsmouth's Stormwater Management program.

Mr. Brown presented the women with an overview of the City's stormwater system components, including information on causes and sources of stormwater pollution. Ms. Linkenhoker discussed the administration of the City's overall program and associated activities to meet permit requirements. Informational brochures were distributed describing how citizens can make informed decisions to positively affect our area's lakes and rivers and help prevent stormwater pollution.



THE MAIN DRAIN

The Main Drain is a publication that addresses local Stormwater and Erosion and Sediment Control issues concerning Portsmouth residents and employees and is produced by The City of Portsmouth, Department of Public Utilities / Public Works - Division of Stormwater Management.

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ATTENTION TEACHERS !!!

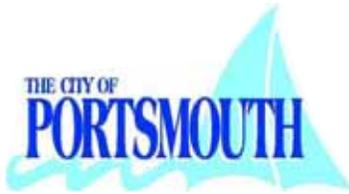
Applications Being Accepted for Mini-Grants Program

The Hampton Roads Environmental Education Teams (HR WET, HR STORM and HR CLEAN) offer competitive mini-grants of up to \$250 each year to provide supplemental funding for environmentally-related projects. All school teachers (K-12) and youth leaders in the Hampton Roads region are eligible.

All projects should be specifically tied to litter prevention, waste minimization and recycling or beautification; or water conservation, stormwater pollution prevention and efficiency.

For a list of appropriate topic areas, more information and access to the easy-to-fill-out application, refer to the HR STORM website at:
<http://www.hrstorm.org/MiniGrant.shtml>

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